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// Main function

#include <iostream>
#include <unistd.h>
#include <sys/types.h>
#include <sys/wait.h>
#include <stdio.h>
#include <errno.h>
#include <stdlib.h>
#include <string.h>
#include <string>
using namespace std;

int main()
{
    cout<<"-----"<<endl;
    cout<<"Welcome to the spell checker software"<<endl;
    cout<<"-----"<<endl;
    cout<<endl;
    int pipefd[2];
    if(pipe(pipefd)==-1)
        cout<<"error in pipe "<<endl;
    cout<<"Enter text to check for spelling : ";
    string text;
    getline(cin,text);

    pid_t childpid = fork();

    if(childpid==0)//child
    {
        cout<<"Child with id : "<<getpid()<<" has started"<<endl;
        close(pipefd[0]);
        write(pipefd[1],&text,sizeof(text));
        close(pipefd[1]);
        execlp("./arhamspell", "arhamspell", text.c_str(), (char *)NULL);
        cout<<"Exec failed"<<endl;

        //cout<<"Text = "<<text<<endl;
    }
    else if(childpid>0)
    {

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    int status;

    waitpid(childpid, &status, 0);

    cout<<"Parent process with pid = "<<getpid()<<endl;

    int exit=WEXITSTATUS(status);

    if(exit==1)
        cout<<"Parent says Spelling correct"<<endl;
    else
        cout<<"Parent says spelling in-correct"<<endl;
}

return 0;
}

```

/// The below is the code for checking the spelling

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#include <iostream>
#include <fstream>
#include <string>

using namespace std;

bool checkSpelling(const string& text_to_check)
{
    ifstream infile("words.txt");
    if (!infile)
    {
        cerr << "Error opening file: words.txt" << endl;
        return false;
    }

    string word;
    bool found = false;
    while (infile >> word)
    {
        if (word == text_to_check)

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        {
            found = true;
            break;
        }
    }

    infile.close();

    return found;
}

int main(int argc, char *argv[])
{
    if (argc != 2)
    {
        cerr << "Usage: " << argv[0] << " <text_to_check>" << endl;
        return 1;
    }

    string text_to_check = argv[1];
    bool isCorrect = checkSpelling(text_to_check);

    if (isCorrect)
    {
        cout << "*****Correct
Spelling*****" << endl;
        return true;
    }
    else
    {
        cout << "*****In-Correct
Spelling*****" << endl;
        return false;
    }
}

```

So, first of we create a pipe and input from user the word he wants to check the spelling of and then we use fork to create a child process, next we write that user input to the pipe and call our arhamspell.cpp using execlp, execlp doesnot need to specify the exact path of the file. After calling it the spell checker will return true or false to the pipe we created based on if the spelling is correct or not. Then the parent will output spelling correct or in-correct based on the value in the pipe.